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<u>L21</u>	L20 and (multi-variable or multivariable)	9	<u>L21</u>
<u>L20</u>	commoditi\$	20580	<u>L20</u>
<u>L19</u>	(multi-variable or multivariable) near commoditi\$	1	<u>L19</u>
<u>L18</u>	L17 and (multi-variable or multivariable) near commoditi\$	1	<u>L18</u>
<u>L17</u>	L16 and (tender or money or cash)	1687	<u>L17</u>
<u>L16</u>	L15 and (auction or bidd\$ or buy\$ and sell\$)	3902	<u>L16</u>
<u>L15</u>	(commodities or diamonds or petroleum near products)	222611	<u>L15</u>
<u>L14</u>	(commodities or diamonds or petroleum ner products)	3574101	<u>L14</u>

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<u>L13</u>	5038284.pn.	1	<u>L13</u>
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DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L12</u>	110 and 705/37	2	<u>L12</u>
<u>L11</u>	L10 and auction\$	1	<u>L11</u>
<u>L10</u>	complex near commodities	23	<u>L10</u>

<u>L9</u>	complex near commodities near (trad\$ or auction\$ or bidd\$)	0	<u>L9</u>
<u>L8</u>	L7 and offers	246	<u>L8</u>
<u>L7</u>	L6 and match\$	318	<u>L7</u>
<u>L6</u>	commodities near (trad\$ or auction\$ or bidd\$)	861	<u>L6</u>
<u>L5</u>	L4 and match\$ near bids	34	<u>L5</u>
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<u>L1</u>	(buy\$ and sell\$ or auction or bidd\$)near commodities	310	<u>L1</u>

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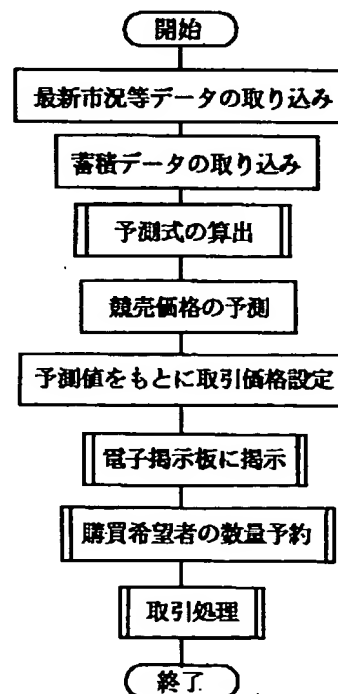
岐阜県各務原市那加東亜町90番地の19

(54) 【発明の名称】 卸売市場における取引方法

(57) 【要約】

【目的】 関係要因をもとに予測する卸売市場における翌日以降の競売価格を取引価格若しくは基準価格若しくは参考価格として、情報通信網を介し若しくは会合の場に提示して当該物資相当品の予測日以前の事前取引を行う。

【構成】 市況等のデータにより競売価格予測のシステム、予測価格と関連情報を事前取引の場に提示するシステム及び購入を受け付けるシステム並びにこれらを連結統合するシステムで構成される。



【特許請求の範囲】

【請求項1】 関係要因をもとに予測する競売物資の翌日以降の競売価格を当該物資相当品の予測日以前の事前取引に対して情報通信網を経由して若しくは会合の場に事前に提示することを特徴とする卸売市場における取引方法。

【請求項2】 提示する競売価格を取引価格とする請求項1記載の卸売市場における取引方法。

【請求項3】 提示する競売価格を取引の基準価格若しくは参考価格とする請求項1記載の卸売市場における取引方法。

【請求項4】 関係要因に競り人による経験値要因を加える請求項1記載の卸売市場における取引方法。

【請求項5】 関係要因に当該物資の価格との相関分析によって抽出される競合品に関する要因を加える請求項1記載の卸売市場における取引方法。

【発明の詳細な説明】

【0001】

【産業上の利用分野】本発明は、農畜水産物の卸売市場における物資の取引に関し、予測される競売価格を提示して取引の価格と数量を事前に取り決める取引の方法に関する。

【0002】

【従来の技術】翌日以降の取引に関し事前に数量と価格を取り決める予約取引では取引担当者の経験による見込みで行い、また、競売開始前に先に物資を引き取ってしまう先取りの価格は当該物資残品の競売価格をもとに後付け決定していた。

【0003】

【発明が解決しようとする課題】青果物、水産物、花き、畜産物の卸売市場における取引は、競売を原則としているが、市場構造の変化に伴って、事前契約による相対取引の需要が大きくなっている。しかし、これらの物資は貯蔵性が低く易変性であり、天候等自然条件の変動によって需給バランスは容易に崩れ易く、相場が不透明であった。したがって、物資不在で取り決める事前価格には見直しが常在して取引に混乱があり、また先取りにおいては物資引き取り時に価格不明のため取引に多大の障害があった。

【0004】従来、実際の取引日の価格を事前に予測する試みはあったが、競売単位の価格予測は困難であった。これは価格構成要素の取りあげ方が適切でなかったためであり、また、卸売市場における熟練者の経験による予測も誤差が大きく現実的ではなかった。

【0005】しかし、卸売市場における物資の取引は商物一致による競売を原則としながらも、競売前に予め価格を取り決めて荷引きする要求が強くなっていた。そこで、事前に価格を取り決めて数量とともに取引を予約する方法が提案されたものの、事前に取り決めた価格は取引日の競売価格との相違が大きくなりがちで、事実上、

事前取り決めの価格が機能しないという欠点があった。

【0006】したがって、実際には先取りが大勢を占める傾向が強いと云う問題点があった。このことに対し、透明度の高い公正な取引価格をもとにした取引の実現が願望されていた。

【課題を解決するための手段】

【0007】本発明で考案された新法は予測しようとする取引単位における当該物資の過去の取引情報および関係する他物資の情報をもとにして、日若しくは週の価格変動を解析しつつ、現在までの価格構成要素をもとに、翌日以降の価格を多変量解析手法によって迅速容易な予測を実現するもので、これを事前取引価格とし、或いは基準価格若しくは参考価格とすることで事前取引を円滑に実現できるよう抜本的に改めたところに特徴がある。

【0008】本発明で考案された方法に基づいて競売価格の予測が行われ、これを基準として取引を行う方式が試験され、キャベツによる実証によりその卓越した効果が証明された。

【0009】

【作用】過去の取引データをもとに翌日以降の個別物資に関し特定出荷者の特定規格の競売価格を算出し、これを基準若しくは参考にして事前の取引価格を設定して競売前の価格と数量を取り決めることを特徴とする。

【0010】

【実施例1】卸売市場において、キャベツを対象品目にして、その個別出荷者の特定規格の翌日の競売価格を、具体的に数値で示す方法に関し検討し、これを事前取引の場に提示して購入予約数量を受け付ける取引方式を試験した。

【0011】翌日の競売価格を予測するにあたっての必要な説明要因は前日までに入手できるものでなければならぬ。予測のための式は名義尺度をも要因として加えることから理論的には数量化理論Ⅰ類が適当であるが、この方法によれば連続尺度の数値をクラス分けしなければならないという複雑さを伴う。

【0012】したがって重回帰分析との併用型が妥当であるが、結果の検討を踏まえ、また操作の単純さから、最終的に重回帰分析による重回帰式のみで価格予測することで十分な予測精度を得ることができた。

【0013】予測式は、毎日のデータを加えて新たな式を作成して翌日の競売価格を予測した。説明要因の有効性を標準回帰係数のF値によって取捨選択し、取りあげた要因の中から10要因程度を有効要因として予測式に取り込んだ。

【0014】取りあげた要因としては、翌日の特性として、該当物資の特定規格の予定入荷量、予想天気、市場の休み前後の区別。

【0015】本日の特性として、天気、気温、物資全入荷量と価格、当該品目全体入荷量と価格、競合品入荷量

と価格。

【0016】過去の傾向を、暦の変動、すなわち日及び曜日の変動で表し、上記本日特性の要因の他、特定規格品の入荷量と価格に関し、単純値と計算加工値を取りあげた。

【0017】その結果、競売価格の予測と実際の誤差は5%以内におさまリ、これを事前取引価格として、試験的に3日間に亘り会合によって、さらに別の3日間を公衆通信網を用いRS232Cインターフェースを介してセンタとして設置したコンピュータ上に価格と入荷数量並びに関連情報を掲示し、これに対し予約購入数量を受け付けて取引を成立させることが出来、本発明による卸売市場における取引方法の十分な実用性が認められた。

【0018】

【発明の効果】以上の説明から明らかなように、卸売市場における取引方法において、本発明は以下に記載され

た効果を奏する。

【0019】市況など必要要因の数値を与えることにより、事前に競売価格を推定し、これをもとに取引価格を定めることによって予約取引を円滑に実現できる。

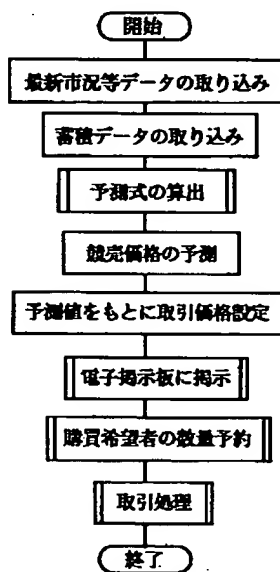
【0020】予測する競売価格は予測式によって単純に得ることができる。

【0021】本発明によれば競売価格を事前に精度良く推定できるため情報通信網利用による取引が容易で、従来の先取り及び現物取引を抜本的に改革し、産業的合理化に極めて貢献度が高い。

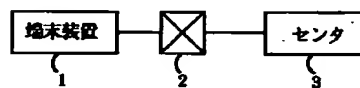
【図面の簡単な説明】

第1図はこの発明の一実施例の動作を説明するフロー図である。第2図はこの発明の一実施例の卸売市場における取引方法を示す図である。図において、1は端末装置、2は公衆通信網、3はセンタを示す。

【第1図】



【第2図】



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File: JPAB

Mar 9, 1999

PUB-NO: JP411066189A

DOCUMENT-IDENTIFIER: JP 11066189 A

TITLE: TRANSACTION METHOD IN WHOLESALE MARKET

PUBN-DATE: March 9, 1999

INVENTOR-INFORMATION:

NAME

COUNTRY

KAMIYAMA, CHIHARU

ASSIGNEE-INFORMATION:

NAME

COUNTRY

KAMIYAMA CHIHARU

APPL-NO: JP09264809

APPL-DATE: August 22, 1997

INT-CL (IPC): G06 F 19/00

ABSTRACT:

PROBLEM TO BE SOLVED: To smoothly carry out reserved transaction by giving numbers for necessary factors such as the state of the market, estimating auction prices in advance, and determining dealing prices.

SOLUTION: While the daily or weekly price variation is analyzed according to past dealing information in dealing units to be predicted and information on relative commodities, prices for tomorrow and following days are speedily and easily predicted by a multi-variable analyzing method on the basis of price constitution elements obtained so far and those are regarded as previous dealing prices, or reference prices or reference prices to basically improve previous dealings so that they can be made smooth. In this case, the method includes a terminal device 1, a public telephone line 2, and a center 3 and specific auction prices of specific standards of a specific shipper are calculated as to individual commodities of tomorrow and following days according to past dealing data; and previous dealing prices are set on the basis of or by referring to them to determine the prices and quantities before auction.

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L5: Entry 34 of 34

File: USPT

Feb 10, 2004

DOCUMENT-IDENTIFIER: US 6691094 B1

TITLE: Bank loan trading system and method

Brief Summary Text (2):

The present invention relates to a loan trading system and corresponding method and, more particularly, to a loan trading system carried out over the Internet to match buyers and sellers of loans via the matching of bids and offers or through the conducting of auctions.

Brief Summary Text (17):

The loan trading market is considered an over-the-counter market. This means that there is no exchange through which bids and offers are quoted and matched bids and offers are processed. For purposes of this discussion, trading is broken down into two types: trades through interdealer brokers and all other trades.

Brief Summary Text (36):

In accordance with one embodiment of the present invention, apparatus and method are provided for facilitating the trading of bank loans between buyers and sellers. Bank loan information (e.g., borrower and tranche) regarding bank loans for trading are posted to potential buyers and sellers, sellers and buyers enter offers and bids, respectively, for posted loans and the offers and bids are then posted to all potential buyers and sellers. It is determined whether a match between one of the bids and one of the offers for the same bank loan exists, and if a match exists, the matching bid and offer are filled by conducting a trade between the buyer who entered the bid and the seller who entered the offer.

Brief Summary Text (43):

As yet an additional aspect of the present invention, offers are rounded to the nearest million dollars prior to determining whether an offer and a bid match. Upon finding a match, it is determined if the amount to be sold is the actual offer amount, which may be an odd amount, or a rounded even dollar amount.

Drawing Description Text (8):

FIGS. 6A-6G represent a flow chart detailing the specific steps and inquiries taken during confirming the order and matching of bids and offers in accordance with the present invention;

Detailed Description Text (4):Matching of Bids and OffersDetailed Description Text (5):

In accordance with the present invention, the matching of bids and offers is carried out by the process schematically illustrated by the flow chart shown in FIG. 1. Each process and step shown in FIG. 1 is discussed hereinafter. Initially, existing bank loans for sale are displayed to users accessing the website previously mentioned, as represented by step 101 shown in FIG. 1. FIG. 2 is an exemplary webpage that is displayed to users and for convenience herein is identified as "the quote page." Of course, existing bank loans and associated

information may be displayed to users in various formats.

Detailed Description Text (13):

Further, the user is asked to enter the bid or offer price and the amount. As is well known, bank debt prices are measured in terms of points which equal the percentage of the par amount of the loan. For example, a price of 99.5 means the loan is priced at 99.5% of the par amount. 99.5 is also 0.5 points less than par. The price tendered and the loan amount equate to that displayed in columns 40 and 42 (for bids) and columns 50 and 52 (for offers) in table 20 in FIG. 2. The user also is asked to enter the terms of the bid or offer with regard to the size of the bank loan willing to be purchased or sold. The terms selected equates to that information displayed in column 44 (for bids) and column 56 (for offers) in table 20. If the user seeks no partial order, then "All or None" is selected thereby requiring another user's matching bid or offer to match exactly or to closely match (as discussed below with regard to "odd") the amount of the current user's order. An example of an "All or None" bid is shown in row 20c in table 20 of FIG. 2, wherein the bidder (i.e., prospective purchaser) seeks to purchase the entire \$5 million of a pro rata loan to American Axle.

Detailed Description Text (14):

If the user is willing to enter into a trade of less than the entire amount of the user's own bid or offer, then the user can select one of the following two alternative set of terms. The user can select the term "Partial Fill.gtoreq.Minimum Size (Partial Fill)" thereby allowing for a matching bid or offer to equal the designated minimum size (which is an even million dollar amount), to equal any even million dollar amount higher than the minimum size and at least one million less than the order amount rounded to the nearest million, or to equal the exact offered amount. As an example of this selection, a user offers \$12 million with the requirement Partial Fill.gtoreq.\$5 million and thus the user is willing to enter into a trade in the amounts of \$5 million, \$6 million, \$7 million upwards to \$12 million (the entire amount). The user also can select the term "Partial Increments.gtoreq.Minimum Size (Partial Increments Only)" as shown in FIG. 3, thereby allowing for a matching bid or offer to equal the designated minimum size, to equal any amount above the minimum in increments of \$5 million or some multiple thereof (e.g., \$5 million, \$10 million, \$15 million, etc.) as chosen by the user, or to equal the exact offer amount. As an example of this selection, a user offers \$22 million with the requirement "Partial \$5 Million Increments Only.gtoreq.\$7 Million" and thus the user is willing to enter into a trade in the amounts of \$7 million (the minimum), \$10 million, \$15 million, \$20 million (representing the partial incremental amounts) or \$22 million (the ad entire amount). In another embodiment, the system trades in the amounts of, for example, \$7 million (the minimum), \$12 million, \$17 million, (representing the partial incremental amounts) or \$22 million (the entire amount). Thus, the present invention is not limited to the numbers and increments provided herein.

Detailed Description Text (16):

Bank loans, unlike bonds, may be held in odd amounts. For example, bonds are typically issued in even \$1,000 par amounts. In contrast, bank loans may be allocated amongst a bank group with odd amounts rounded to the nearest cent. In addition, even if the bank loan was allocated in even million dollar increments during syndication, prepayments and scheduled amortization payments may result in borrowers owing odd amounts to members of the bank group. As buyers and sellers may wish to maintain their anonymity, as do the system operators wish to maintain the anonymity of its users prior to the matching of bids and offers (discussed below), and revealing an exact amount offered for sale may provide information that will help identify the seller making an offer, the system displays even million dollar amounts and employs methods, rules and algorithms to provide for trades in odd amounts.

Detailed Description Text (43):

The above-discussed functions and features of confirming the order and matching of bids and offers, whether disclosed or undisclosed, with the various confirmations are further schematically illustrated in the flow chart shown in FIGS. 6A-6G. Steps 300-304 concern user authentication security measures. User order information is printed at step 305 and based upon whether the order is a bid or an offer, as determined at inquiry 306, the process proceeds to step 307 for an offer and inquiry 316 (FIG. 6B) for a bid. Steps 307-310 concern compliance with the credit agreement. Inquiries 311 and 316 determine if the indicated borrower is in the system and if not, a user message is provided at step 312. Similarly, inquiries 314 and 317 determine if the indicated tranche is in the system and if not, a user message is provided at 315. The system's personnel is notified at step 313. For offers, the system verifies that the grid or that the tranche's base rate and base rate spread are in the system at inquiries 318 and 319 (FIG. 6C). If not, the user is informed at step 320. Whether the minimum assignment information is in the system is determined at inquiry 321 and if not, the user is asked to provide proof of the minimum assignment amount at request 322.

Detailed Description Text (62):

Whether the sponsor or the participant is the seller in a sale auction or reverse-offer auction, respectively, the system requires the seller to represent its compliance with the minimum assignment and retained amounts restrictions of the credit agreement. FIG. 9 is an exemplary webpage displayed to a user sponsoring and participating in an auction that requires the user to certify that it complies with these restrictions of the credit agreement.

CLAIMS:

1. A bank loan trading method for matching buyers with sellers of bank loans, comprising the steps of: using a computer or other system to post to buyers and sellers bank loan information regarding bank loans for sale; entering by one or more of said sellers offers for respective ones of the posted bank loans entering by one or more of said buyers bids or respective ones of the posted bank loans; posting to said buyers and sellers the bids and offers for each of the posted bank loans; determining whether a match exists between one of said bids and one of said offers for the same bank loan; filling the matching bid and offer by conducting a trade between the buyer entering said one of said bids and the seller entering said one of said offers; and further comprising the steps of a buyer or a seller or both designating whether a partial order may be filled, for both bids and offers, are carried out by designating an All or None order, a Partial Fill order, or Partial Increments Only order; said All or None order representing an order having a possible fill amount of only said bank loan dollar amount, said Partial Fill order representing an order having possible fill amounts of increments of a predetermined size greater than the unit of currency of said loan between and including a minimum size and said bank loan dollar amount, and said Partial Increments Only order representing an order having possible fill amounts of said minimum size, incremental amounts greater than said minimum size and less than said bank loan dollar amount in increments of an increment size greater than the unit of currency of said loan, and said bank loan dollar amount, said minimum size and said increment amount being designated by a seller entering said offer or a buyer entering said bid.

2. A bank loan trading method for matching buyers with sellers of bank loans, comprising the steps of: using a computer or other system to post to buyers and sellers bank loan information regarding bank loans for sale; entering by one or more of said sellers offers for respective ones of the posted bank loans; confirming that filling any possible fill amounts of an entered order would not result in a violation of terms of the respective bank loan being offered; entering by one or more of said buyers bids for respective ones of the posted bank loans; posting to said buyers and sellers the bids and offers for each of the posted bank loans; determining whether a match exists between one of said bids and one of said

offers for the same bank loan; and filling the matching bid and offer by conducting a trade between the buyer entering said one of said bids and the seller entering said one of said offers; wherein the entered offers represent actual offers, and the step of posting the offers for each of the posted bank loans is carried out by rounding each of said actual offers to a nearest interval of a preset dollar amount to provide rounded offers and posting only the rounded offers and said step of posting the bids and offers further includes the steps of determining whether each of said rounded offers is within a predetermined offset amount of the respective actual offer and posting information for each of the posted rounded offers indicating whether the respective rounded offer is within the predetermined offset amount of the actual offer.

5. A bank loan trading method for matching buyers with sellers of bank loans, comprising the steps of: using a computer or other system to post to buyers and sellers bank loan information regarding bank loans for sale; entering by one or more of said sellers offers for respective ones of the posted bank loans; confirming that filling any possible fill amounts of an entered order would not result in a violation of terms of the respective bank loan being offered; entering by one or more of said buyers bids for respective ones of the posted bank loans; posting to said buyers and sellers the bids and offers for each of the posted bank loans; determining whether a match exists between one of said bids and one of said offers for the same bank loan; filling the matching bid and offer by conducting a trade between the buyer entering said one of said bids and the seller entering said one of said offers; wherein the entered offers represent actual offers, and the step of posting the offers for each of the posted bank loans is carried out by rounding each of said actual offers to a nearest interval of a preset dollar amount to provide rounded offers and posting only the rounded offers and the step of entering bids is carried out by entering only bids in intervals of said preset dollar amount; and the step of determining whether a match exists is carried out by determining whether a match exists between a bid and the rounded offer for the same bank loan; and the step of entering bids or offers further includes the steps of indicating, for each bid or offer, whether a partial order may be filled and entering partial amounts representing portions of said actual bid or actual offer that are acceptable to fill the bid or the offer, with such preset dollar amount being greater than the unit of currency of said loan.

6. A bank loan trading method for matching buyers, with sellers of bank loans, comprising the steps of: using a computer or other system to post to buyers and sellers bank loan information regarding bank loans for sale; entering by one or more of said sellers offers for respective ones of the posted bank loans; confirming that filling any possible fill amounts of an entered order would not result in a violation of terms of the respective bank loan being offered; entering by one or more of said buyers bids for respective ones of the posted bank loans; posting to said buyers and sellers the bids and offers for each of the posted bank loans; determining whether a match exists between one of said bids and one of said offers for the same bank loan; and filling the matching bid and offer by conducting a trade between the buyer entering said one of said bids and the seller entering said one of said offers; wherein each of said posted bank loans includes a respective minimum retained amount restriction that is greater than zero and the step of filling the matching bid and offer is carried out by conducting a trade representing an entire amount or a partial amount of the respective bank loan; said bank loan trading process further comprising the steps of determining, when a partial amount of the respective bank loan can be traded, whether an amount of the loan to be retained by the respective seller if the respective; loan is partially traded is greater than or equal to the minimum retained amount restriction of the respective loan; and preventing the respective seller from entering the respective offer if the respective offer can result in an amount retained by the respective seller that is not greater than or equal to the minimum retained amount restriction of the respective loan.

7. A bank loan trading method for matching buyers with sellers of bank loans comprising the steps of: using a computer or other system to post to buyers and sellers bank loan information regarding bank loans for sale; entering by one or more of said sellers offers for respective ones of the posted bank loans; entering by one or more of said buyers bids for respective ones of the posted bank loans; posting to said buyers and sellers the bids and offers for each of the posted bank loans; determining whether a match exists between one of said bids and one of said offers for the same bank loan; filling the matching bid and offer by conducting a trade between the buyer entering said one of said bids and the seller entering said one of said offers; wherein the step of entering bids further include the step of entering whether the respective bid is disclosed or undisclosed; and the step of posting bids and offers posts only the disclosed bids and offers; said bank loan trading method further comprising the step of determining whether a match exists between one of said bids and one of said offers for the same bank loan further includes the step of determining, if no match exists for a respective offer and said offer is undisclosed, whether one of said bids for the same bank loan as the undisclosed offer is within a predetermined amount of the undisclosed offer and advising both the respective seller that entered the undisclosed offer and the respective buyer that entered said one of said bids of a proximity of the undisclosed offer and said one of said bids.

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L21: Entry 7 of 9

File: USPT

Jan 21, 1997

US-PAT-NO: 5596493

DOCUMENT-IDENTIFIER: US 5596493 A

TITLE: Method for classifying sale amount characteristics, method for predicting sale volume, method for ordering for restocking, system for classifying sale amount characteristics and system for ordering for restocking

DATE-ISSUED: January 21, 1997

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NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
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FIELD-OF-SEARCH: 364/403, 364/404, 364/405, 364/401, 364/400, 235/375-385

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>3876863</u>	April 1973	Boone	235/61.7R
<input type="checkbox"/> <u>4025766</u>	May 1977	Ng et al.	235/152
<input type="checkbox"/> <u>4355372</u>	October 1982	Johnson et al.	364/200
<input type="checkbox"/> <u>4521677</u>	June 1985	Sarwin	235/385
<input type="checkbox"/> <u>4771383</u>	September 1988	Takahashi	364/405
<input type="checkbox"/> <u>4825045</u>	April 1989	Humble	235/383
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ART-UNIT: 241

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ABSTRACT:

POS data are entered at step S1. The input POS data are arranged and those data for a day on which there was no stock at the store opening time and for a day on which the goods are out of stock at the store closure time are discarded to formulate data sets of the daily sale amounts for individual goods. At step S3, non-routine goods are discarded. At step S4, basic statistic values of the goods, such as mean value, standard deviation, maximum value, minimum value, skewness value, kurtosis value, Geary value etc. of the daily sale amounts of the goods are calculated. At step S5, the goods are classified into one of preset plural types, such as Poisson type, normal type, causal type and other type. Besides, an optimum amount for restocking order is found on the basis of the class types.

16 Claims, 8 Drawing figures

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